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ABSTRACT

It is important to know and understand the cultural heritage of Hispanic students if this population is to achieve academic success. Excessive drop out rates coupled with low high school and postsecondary graduations indicate the need for reforming school reading/writing and academic curricula. Also, educators at all levels need to be aware of the varying background and linguistic factors exhibited by Hispanic subgroups. To account for these differences, more and diversified literature from Hispanic writers is needed. Learning strategies that can be self-initiated (such as concept mapping and Vee diagramming) as well as strategies that are teacher assisted (such as the use of thematic organizers) can be taught and used by the teacher to help students better understand conceptual relationships among ideas. (Seven notes are included; 58 references are attached.) (RS)

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HISPANIC BACKGROUND AND LINGUISTIC FACTORS: SOCIAL CONTEXTS FOR READING COMPREHENSION AND INSTRUCTION

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Hispanic Background and Linguistic Factors: Social Contexts for Reading Comprehension and Instruction

A primary goal for reading comprehension and instruction is to relate the ideas expressed by the vocabulary of the text to Hispanic students in a way that they can be understood. This entails knowing and understanding the cultural heritage of Hispanic students, being familiar with the linguistic problems that are encountered by these students when reading English texts, and determining the extent of their prior knowledge when they are asked to learn new information.

Hispanics are the oldest immigrants and represent the fastest growing ethnic population in the United States. This rich legacy can be traced to early settlements in North and South America. By 1574, thirty-three years before the first English settlers in Virginia, there were approximately two hundred Spanish cities and towns in North and South America (Bailey, 1961). Since this period of our history, the term "Hispanic American" has been attributed to a diverse group of Americans. These individuals have included Mexicans, Puerto Ricans, Cubans, other Central and South Americans, immigrants from Spain, and other Latinos.

The Hispanic population of the United States is constantly growing. From 1980 to 1988, there was a 34 percent or about 4.8 million increase in the Hispanic population. The total Hispanic civilian noninstitutional population numbered 19.4 million and represented 8.1 percent of the total United States civilian

noninstitutional population.[1] Hispanic communities have developed primarily in the southwest, midwest, and eastern parts of the country. Although California (33.9%) and Texas (21.3%) contain most of the Hispanic population, other states, such as New York (10.9%), Florida (7.6%), Illinois (4.1), Arizona (3.3%), New Jersey (3.3%), New Mexico (2.8%), and Colorado 1.9%), also have a substantial number of Hispanic residents. The remainder of the states when added together account for 11 percent of the Hispanic population.[2]

Despite this early settlement and increase in population, Hispanics do not fare well in either the social, political, economic, or educational strata in our society. A significant factor for this unevenness is an educational systems' failure to respond to the language and cultural diversity of the Hispanic population.

This article reports the academic difficulties that Hispanic students encounter as a result of background and language differences that often inhibit problem-solving performance and overall school achievement. First, data are presented on the overall academic achievement of Hispanics. Next, examples are given of how the Spanish language is distinctively different among Hispanic subgroups. Finally, some pertinent educational factors that contribute to Hispanic academic difficulties are presented along with suggested learning strategies that may aid the precollege and college educator who is interested in designing intervention reading programs for the Hispanic learner.

ACADEMIC ACHIEVEMENT AND SCHOOL PERFORMANCE

In the United States, Hispanics have a history of not achieving as well academically as do their non-Hispanic counterparts. Hispanics are more likely to progress through the grades at a slower pace than whites. Data compiled by Verdugo (1986), suggest that Hispanics drop out of school at a greater rate and tend to be delayed in completing their educational goals compared to whites. Hispanics (particularly Mexican and Puerto Ricans), are less likely to graduate from high school when compared to whites. These data are consistent at the elementary, secondary, and postsecondary levels.

According to the Commerce Department's Census Bureau, Hispanic high school and college attainment levels in 1988 reached an all-time high. About half (51 percent) of Hispanics who are 25 years of age and over completed four years of high school or more in 1987 and 1988. Despite these gains, the proportion of Hispanics completing high school (21 percent) when compared to non-Hispanics completing high school (78 percent) are low.[3]

Drop out rates for Hispanics

More Hispanic youths drop out of school than any other non-English-speaking youngsters. The data on drop out rates compiled by Steinberg, Blinde and Chan (1984) suggest that coming from an economically disadvantaged family, not speaking English, and being of Hispanic origin all increase the likelihood of early school-leaving. Their findings reveal that youngsters of

Hispanic origin have approximately twice the dropout rate of those of non-Hispanic origin.

Data gathered by Orum (1986) indicate that approximately 50 percent of Mexican American and Puerto Rican adolescents drop out of school without receiving a diploma. Data from the High School and Beyond Study (1988) show that 18.7 percent of Hispanics who were sophomores in 1980 had dropped out of high school by 1982. Puerto Rican adolescents in the study had the highest drop out rate (22.9%), followed by Mexican-Americans (21.5%), Cubans (19.4%), and Other Hispanics (11.4%). Orum (1986), citing the National Commission on Secondary Schooling for Hispanics, reports that these out-of-school rates do not include approximately 40 percent of all Hispanic drop outs who left school before the tenth grade in 1980.

Postsecondary Education

The Office of Minority Concerns of the American Council on Education (1987) reports that Hispanic high school graduates entering college increased by 21 percent between 1976 and 1985, however their age cohort increased by 43 percent during that same period. The rate of Hispanic students enrolled in college 18-to 24-years of age declined from a high of 35.8 percent in 1976 to 26.9 percent in 1985. While Hispanics represent a larger percentage of their age cohort, a smaller percentage of them are pursuing a college education.[4]

The number of college degrees granted to Hispanics has continued to increase. Hispanics received 17,964 baccalaureate

degrees in 1975-76 compared to 25,874 in 1984-85, a 44 percent increase. During this period, more Hispanic women (56.5%) received Master's degrees than did men (6.7%). At the doctoral level, women had the largest gain (130.0%) as compared to men 49.1%). Despite these increases, the Hispanic population is the most underrepresented group in higher education, particularly at four-year level colleges. The data show that as of the academic year 1985, Hispanics represented 8.2 percent of the 18-24-year-old population, but only 4.3 percent of the enrollment in higher education and received only 2.7 percent of the baccalaureate degrees. Even though the educational attainment level of Hispanics has improved, this population continues to remain below the level of non-Hispanics.[5]

High School and Beyond Study

Statistics provided by the High School and Beyond Study (1988) provide further insight into the disparity between Hispanics and non-Hispanics enrolled in postsecondary education.[6] Postsecondary enrollment was affected by race/ethnicity, sex, and socioeconomic status. Analysis of the findings reported six years later by seniors, who graduated in 1980, showed that the highest rate of enrollment in postsecondary education was attained by Asians (91%). They were followed by whites (71%), blacks (67%), Native Americans (64%), and Hispanics (61%). Sixty-six percent of Asians attended four-year colleges and 48 percent attended other types of postsecondary institutions between 1980 and 1986. Forty-six percent of whites attended four-year

institutions and 36 percent attended other institutions. There was a significant difference between Hispanic and Native Americans attending four-year institutions when compared to the Asian and white populations. Thirty percent of Hispanics enrolled in four-year colleges and 44 percent in other institutions. Twelve percent of the Hispanic students received two year Associate in Arts (A.A.) degrees. Thirty percent of the Native Americans enrolled in four-year institutions and 47 percent attended other types of institutions.

A total of 45 percent of students who entered postsecondary education in 1980, left these institutions by 1984. Fifty-three percent of Hispanics left postsecondary education without earning degrees. Sixty-six percent of 1980 Hispanic high school seniors who entered postsecondary education had left school by 1982 without earning a four-year degree. A significant factor was the correlation of socioeconomic status and educational progress. The lower the socioeconomic status the more likely that students would leave school without earning a degree.

A survey in 1986, of these 1980 high school seniors revealed that Hispanic students were more likely to receive a high school diploma as their terminal degree (38%), and were less likely to pursue postsecondary education than other racial/ethnic groups (61%). Only eight percent of these Hispanic students received vocational certificates. Seven percent earned Associate in Arts (A.A.) degrees, while only 6 percent earned either a Bachelor of Science (B.A.) or a Bachelor of Arts (B.A.) degree.

Schooling in the early, middle and secondary grades.

This disparity between groups on the factor of educational attainment in college may be attributed to the reading/learning methods given to them during their early school training. For example, Davis (1975) reports that Cuban refugees, who were non-English-speaking students, were assigned to special courses based on their ability to speak and understand English, not on the basis of intelligence or academic achievement. Achievement, for these Cuban refugees, was measured in terms of performance rather than verbal ability. Placement in courses was dependent upon the degree of language proficiency. Ballesteros (1986) states that the reason Hispanics are underrepresented in college-bound curricula is directly related to their preparation in elementary and middle school. He attributes this lack of representation to "tracking" practices where slow learners are grouped in elementary school classrooms, while fast learners are placed in fast classes. This tracking of slow learners lowers the level of aspiration for these youngsters by giving them a feeling of not being able to compete academically with those in the advanced classes. The result is that many Hispanic students enroll in occupational preparation programs in high school rather than a college-bound curriculum. The High School and Beyond (1988) Study reports that eight percent of the 1980 seniors who entered postsecondary education by 1984 had received vocational certificates by February 1986. Of this percentage, Hispanic students who earned vocational certificates during this period

accounted for thirteen percent compared to eight percent for Blacks and seven percent for whites.

LANGUAGE PROFICIENCY AND THE HISPANIC STUDENT

There is evidence to suggest that the degree of language proficiency achieved by Hispanics determines their level of academic, cognitive, and linguistic tasks (De Avila & Duncan, 1981; Macnamara, 1967; Mestre, 1981, 1986). Hispanic students are often hindered by their inability to deal with conceptual problem-solving tasks due to a lack of language proficiency needed to comprehend the ideas being asked of them in a text. Mestre (1986) conducted an investigation that compared Hispanic students with Anglo students enrolled in engineering and science college classes. His findings indicate that Hispanic students lack preparation in algebraic skills, language skills, and problem-solving skills that require large amounts of linguistic processing. Semantic difficulties rather than mathematical computational skills accounted for the errors committed by the Hispanic students.

The Spanish Language

The education of Hispanics is made more difficult because of their diverse linguistic structures. For example, there are differences in the Spanish language that is spoken among Puerto Ricans that differ from Chicanos, Cubans, or Spaniards. These differences occur with words in the vocabulary, in pitch of the voice, in cadence of speech, and pattern of language. These

differences stem from the regions in which these people have lived, the amount of education they have received, political influence, and their occupation.

The individuals most affected by these language differences are, perhaps, the students in the American school environment where common language characteristics are expected. These students have problems of language interference, language transfer, code switching and a host of linguistic variations present in or out of the classroom.

Many Spanish-speaking students in America struggle in the learning process. The frustration and failure in learning to read Standard English for Mexican-Americans, Puerto Ricans, Cubans and many other Spanish-speaking groups involves not only the transitional process between different sets of sounds (phonemes) and printed symbols (graphemes) to acquire meaning, but also the need to link the ideas in English texts to their conceptual knowledge.

There have been few studies that have attempted to assess the readability of Spanish texts. The primary measures are the use of readability formulas (Spaulding, 1951, 1956; Patterson, 1972), and the cloze procedure (Stewart & Haase, 1982). In a study involving readability determinants of Spanish basal readers, Alvarez (1980) found that a publisher of a Spanish basal reader was using English translations to determine the readability levels of these reading materials. A problem with this method to determine readability lies in the differing word

and sentence patterns between English and Spanish discourse.

Nine different methods of teaching reading in Spanish were reviewed by Freeman (1988). She found that many of these reading programs consisted of a series of exercises that fragmented the reading language process by proceeding from part to whole. She advocates a whole language Spanish reading program in which language is presented through activities that require social and meaningful interactions that make use of listening, speaking, reading and writing in an integrated format. This reading approach encourages students to use their background knowledge and experience when interacting with the text, thus giving more meaning to the message. Citing her dissertation (Freeman, 1987) she describes that in a study of six Spanish language basal readers published for Hispanics in the United States that the emphasis of these materials is on building comprehension through skills that evolve from part to whole and through step by step exercises and procedures. Her analysis of these basals revealed that most of the Spanish literature had either been translated or adapted from English in these texts. As an alternative to these type of texts, Freeman (1988) suggests Spanish reading programs should include selecting poetry and some of the stories from these basals rather than using all of the stories based upon recommendations to be followed in a teachers' manual; using Spanish newspapers; having youngsters select Spanish trade books, magazines, and newsletters; having youngsters write and read each others materials; and, reading books and stories written in

Spanish by those living in the Hispanic community. An example of a two-way bilingual program is Fratney Street School.

La Escuela Fratney.

Fratney Street School is part of the Milwaukee Public School System and is located in an integrated neighborhood in Milwaukee, Wisconsin. The faculty and staff teach children to be bilingual in Spanish and English, using cooperative and innovative methods; governed by a council of parents and teachers. The school has approximately three hundred children, grades K through five, 42% Black, 37% Hispanic, and 21% other. Approximately 90% of the children qualify for the free lunch program (La Escuela Fratney, 1989). This school is an example of a cultural pluralistic society selecting and using various reading materials written in Spanish and English to enrich a flexible curriculum by meeting the needs of a bilingual student body. The children learn two languages in a whole language and cooperative learning environment. Faculty, staff, and parents work together in helping students to reach their potential.

Fratney Street School practices education that is multicultural and helps students to become bilingual and biliterate people. The school accepts children of all races who speak either Spanish or English. The two-way bilingual program teaches academic content in concert with or before instruction through English to native-speaking English students. The program is designed for each group to maintain their native language while developing necessary literacy skills. It differs from

linguistic programs that stress immersion in the second language used exclusively for instruction in that the two-way program is intended to promote second language learning by emphasizing use of the target languages for academic instruction. The teachers in this two-way bilingual program are proficient in both languages and are committed to bilingualism and native language maintenance. The goal of the program is for both groups of students to be bilingual and biliterate.[7]

Mistaking fluency in spoken "social" English for fluency with "academic" English.

Educators of second language students may assume that if these students are able to speak English fluently that they will encounter little difficulty in learning the subject-matter. This is not necessarily the case (see Alvarez & Herrera, 1990). Meltzer (1982) cautions us that it is a mistake to group all Hispanics as being alike. Each Hispanic group has its own identity and each Hispanic person has feelings and perceptions that differentiate between groups. Language acquisition differs from language learning in that language acquisition takes place by using language in natural settings during daily communication, while language learning focuses on knowing the rules of grammar. Cummins (1980) distinguishes between language proficiency in the sense of social communicative interactions and academic language which is needed to meaningfully learn and process concepts. Cognitive learning in classrooms requires not only the ability to communicate using facile English, but also the ability to

understand conceptual relationships that appear in subject-matter texts.

EDUCATIONAL FACTORS

We cannot assume that Hispanic students entering classrooms come prepared with a contextual framework that will aid assimilation of ideas presented either through lecture or textual readings. Teachers need to be aware that Hispanic students may lack the appropriate background knowledge needed to cope with information presented in class or in assigned readings. Also, a lack of background knowledge may contribute to other related educational problems. These could include limited knowledge of the specialized and technical vocabulary that appear in texts (Stahl, Brozo, & Simpson, 1987), a lack of preparation in maximizing library resources (Risko, Alvarez, & Fairbanks, 1991), a lack of self-initiated study strategies to monitor learning (Risko, Fairbanks, & Alvarez, 1991), and a lack of conceptual understanding of ideas presented in narrative and expository texts.

Enhanced background knowledge of a topic and experiences in learning how to learn can increase the Hispanic students' ability to understand and recall information from text and to fill in the gaps with information not completely mentioned in the text. Often students are required to read and interpret various types of information and it is assumed that they have been prepared to cope independently with these materials. Studies conducted with developmental college classes (Alvarez, Risko, Cooper, & Hall,

1984; Drabin-Partenio & Maloney, 1982) found that these students were significantly underprepared to cope with the courses they were required to take because of limited background knowledge. While these studies have been conducted with college students, in general, it is reasonable to expect that Hispanic students who are experiencing reading comprehension problems are underprepared for secondary and postsecondary instruction (e.g., Ballesteros, 1986; Davis, 1975; Orum, 1986).

Clarifying Conceptual Ambiguities.

Often there are discrepancies between the instructor and the learner as to what the student knows and doesn't know. Many Spanish-speaking students have concepts that they can express in their own language, but sometimes find that this is not the language of the classroom or reading text. For instance, an instructor may mistakenly conclude that a Hispanic student cannot name the most commonplace physical characteristics of the earth's surface in English; but, when asked in Spanish to name these characteristics, she may be able to respond in her native Spanish language by giving a rich explanation of many of these physical features of the earth's surface.

Cultural and linguistic factors have been discussed that inhibit educational attainment for Hispanic students. The focus now centers on three instructional strategies that can be used to clarify conceptual ambiguities through the mutual sharing of knowledge among peers and between the students and the teacher.

Concept Maps, Vee Diagrams, and Thematic Organizers.

A concept map is a representation of an individual's belief system. It is a word diagram that is portrayed visually in an hierarchical fashion and represents concepts and their relationships. Concept maps are used to organize information coherently and around central concepts. Maps can be used to summarize portions of textbooks, to organize ideas before writing a paper, or as a way to review when preparing for an examination. Ideas can be visually inspected and mutually discussed.

Hierarchical concept maps have aided students in constructing and retaining knowledge from text. Much research has been conducted with these hierarchical concept maps and are reported by Novak and Gowin (1984). Most studies have examined the effects of concept mapping information appearing in texts (e.g., Alvarez, Risko, Waddell, Drake, & Patterson, 1988; Alvarez & Risko, 1987; Cardemone, 1975; Kinigstein, 1981; Moreira, 1979; Novak, Gowin, & Johnansen, 1983; Taylor, 1985) or as a clinical interview technique (Ault, Novak, & Gowin, 1984; Novak & Gowin, 1984; Stewart, 1980). The use of concept maps enable students to control and conceptualize their thoughts. Being able to control one's thinking is the first step to awareness within an individual. This self-awareness, according to Vygotsky (1986), is the ability of the individual to regulate his or her own thinking.

Concept mapping seems to be an effective method that Hispanic students could use to regulate and monitor their own

thinking. As a sharing technique to reveal ideas, concept mapping can aid both instructors and students by providing a visual framework from which to clarify misconceptions that may arise during a lesson or an assignment These hierarchical concept maps can be used as intermediaries in the reading/writing learning process of a Hispanic student (see Alvarez & Herrera, 1990). Concept maps give more specific information than verbal responses to questions.

Vee diagrams also represent conceptual models for understanding knowledge structures. A Vee diagram is a structured, visual means of relating the methodological aspects of an activity to the underlying conceptual aspects. It focuses on the salient role of concepts in learning and retention. Vee diagrams were developed by Gowin (1981/1987) to enable students to understand the structure of knowledge and process of knowledge construction (see Gowin, 1981/1987; Novak & Gowin, 1984). The fundamental assumption is that knowledge is not absolute, but rather it is dependent upon the concepts, theories, and methodologies by which we view the world. Vee diagramming has been successful as an instructional and an interview heuristic with students in third grade, upper elementary, junior, senior high school, and college students (e.g., Alvarez, 1987; Alvarez & Risko, 1987; Ault, Novak, & Gowin, 1984; Gurley, 1982; Novak, Gowin, & Johansen, 1983).

Vee diagramming can help Hispanic students to better understand the structure of knowledge and process of knowledge

construction. This can be accomplished by visually showing how the conceptual and methodological components of a given topic or problem interacts to form a meaningful composite. The Vee can be used to analyze a document, a research study, or a proposal. It is also effective as an instructional aid for problem solving.

Another strategy that seems to have potential for Hispanic students to better comprehend concepts is a thematic organizer Alvarez, 1983; Alvarez & Risko, 1989; Risko & Alvarez, 1986). A thematic organizer is a text adjunct designed to: (1) highlight systematically and explicitly the central theme of the text; (2) relate the theme to experiences and/or knowledge that students already possess; (3) provide cohesion among the ideas to accommodate text structure; and, (4) aid schema construction by elaborating upon new and extended meanings of a thematic concept. The intent of a thematic organizer is to prepare students to relate their own experiences and prior knowledge to the information in and across texts.

A thematic organizer can be used to alert students to new or abstract concepts appearing in textbooks, thereby assisting them by improving their comprehension. The use of a thematic organizer can also illustrate to Hispanic students how their prior knowledge of a central concept can help them to generate plausible inferences and to elaborate upon the information appearing in the text.

Providing contextual references by which to monitor student comprehension are important if we are to assist Hispanic students

with their conceptual understanding and knowledge of subject-matter. Strategies such as hierarchical concept mapping, Vee diagramming, and thematic organizers provide contextual frameworks from which students can learn and apply prior knowledge to new information.

CONCLUSION

It is important to know and understand the cultural heritage of Hispanic students if we expect school achievement and academic success of this population. Excessive drop out rates coupled with low high school and postsecondary graduations indicate the need for reforming our school reading/writing and academic curricula. Also, we need to raise the level of consciousness by creating an awareness among educators at the primary, middle, secondary, and postsecondary levels of the varying background and linguistic factors exhibited by Hispanic subgroups.

To account for background and linguistic differences in Hispanic subgroups, more and diversified literature from Hispanic writers is needed because of the varying writing style and vocabulary usage of people from South or Central America, Cuba, Puerto Rico, Mexico, the American Southwest, or other Hispanic populations.

Learning strategies that can be self-initiated such as concept mapping and Vee diagramming as well as those that are teacher-assisted like the use of thematic organizers can be taught and used by the teacher to help students to better

understand conceptual relationships among ideas. Strategies such as these help students and the teacher to reach mutual understanding by resolving differences and uncertainties through negotiating meaning.

Further research needs to be conducted with the different Hispanic subgroups. San Miguel (1987) suggests that this research should compare and contrast the respective educational experiences of Hispanic subgroups in order to provide a greater understanding of the experiential differences that are part of our American educational heritage. Perhaps this research will lead to better teaching and learning practices that will enable Hispanic students to prosper educationally, economically, socially, and politically.

Notes

1. Hispanic subgroups were represented as follows: Mexican-Americans totaled 12.1 million and represented 62.3 percent of the Hispanic population, Puerto Ricans totaled 2.5 million and represented 12.7 percent of the Hispanic population, Central and South Americans totaled 2.2 million and represented 11.5 percent of the Hispanic population, Cubans totaled 1.0 million and represented 5.3 percent of the Hispanic population, and Other Hispanics (persons from Spain and those describing themselves as "Hispanic," "Spanish," or "Latinos") totaled 1.6 million and represented 8.1 percent of the Hispanic population. The source for these figures is The Hispanic Population in the United States: March 1988, (Advance Report), Current Population Reports, U.S. Department of Commerce, Bureau of the Census.

2. Percentages are reported from The Hispanic Population in the United States: March 1988 (Advance Report). Current Population Reports, U.S. Department of Commerce, Bureau of the Census.

3. The percentage of Hispanic subgroups aged 25 and over completing four or more years of high school are: Mexican-Americans 45 percent, Puerto Ricans 51 percent, Cuban 61 percent, Central and South Americans 64 percent, and Other Hispanics (persons from Spain and those describing themselves as "Hispanic," "Spanish," or "Latinos") 65 percent. The source for these figures is the U.S. Bureau of Census, March 1988.

4. American Council on Education Office of Minority Concerns, Sixth Annual Status Report, Washington, D.C., 1987.

5. The U.S. Bureau of Census, March 1988, reports that 10 percent of Hispanics completed four or more years of college compared to 21 percent of non-Hispanics (aged 25 and over). The percentages by type of origin are: Mexican-Americans 7%, Puerto Ricans 10%, Cubans 17%, Central and South Americans 17%, and Other Hispanics 14%.

6. National Center For Education Statistics, Analysis Report, High School and Beyond, A Descriptive Summary of 1980 High School Seniors: Six Years Later. U.S. Department of Education, Office of Educational Research and Improvement, July 1988. The High School and Beyond Study is a longitudinal study with a nationally representative sample of over 58,000 1980 high school sophomores and seniors. Both the 1980 senior and sophomore samples were surveyed in 1980, 1982, 1984, and 1986. The data reported in this portion of the article represents the findings of 11,227 HS&B seniors who participated in the third follow-up survey in 1986.

7. The faculty, staff, students, and parents have published two books entitled La Escuela Fratney: Year One, 1989, and Growing with La Escuela Fratney: Year II, 1990. These can be purchased by writing to: La Escuela Fratney, 3255 N. Fratney Street, Milwaukee, WI 53212. A quarterly publication entitled Rethinking Schools can be obtained by writing to: Rethinking Schools, 1001 East Keefe Avenue, Milwaukee, WI 53212.

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